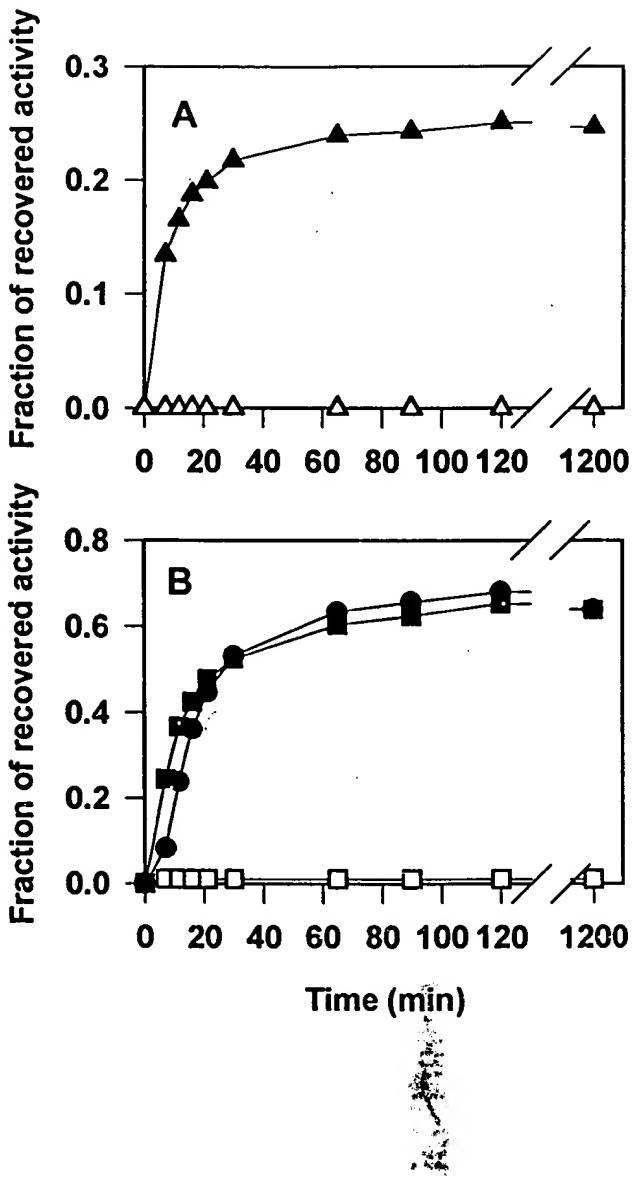
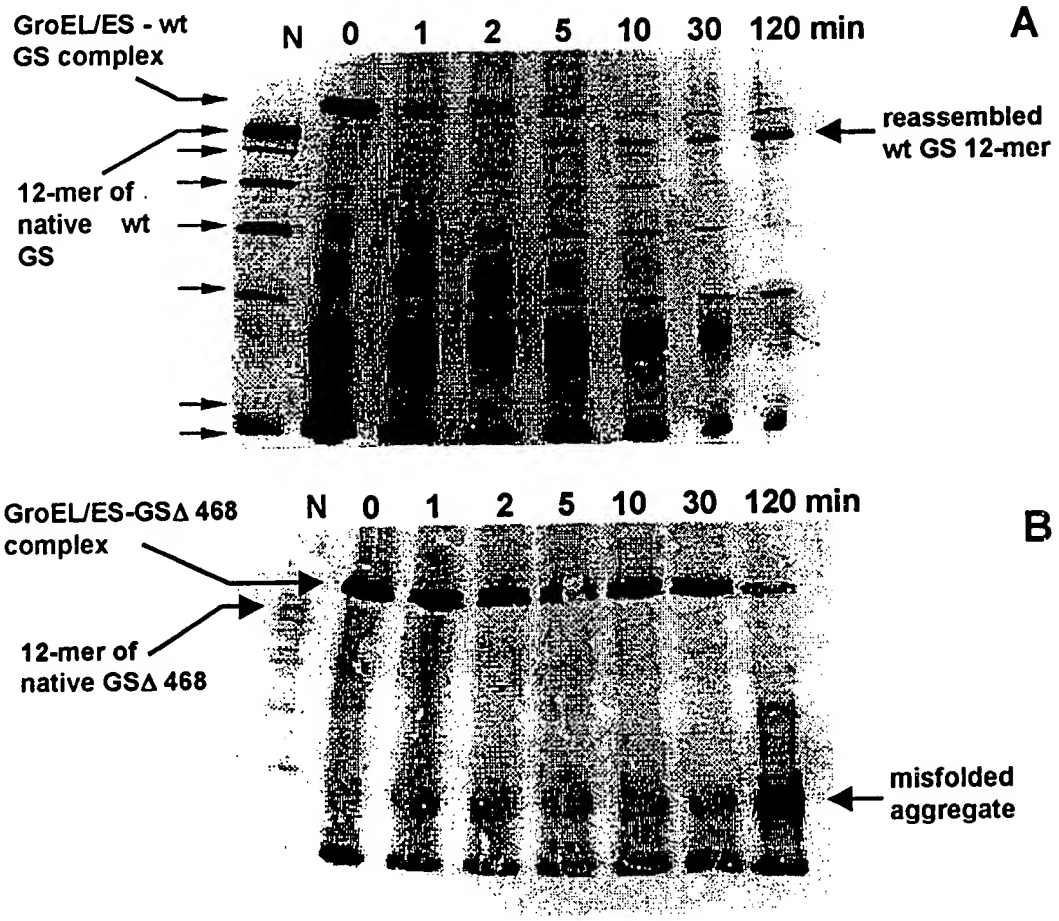
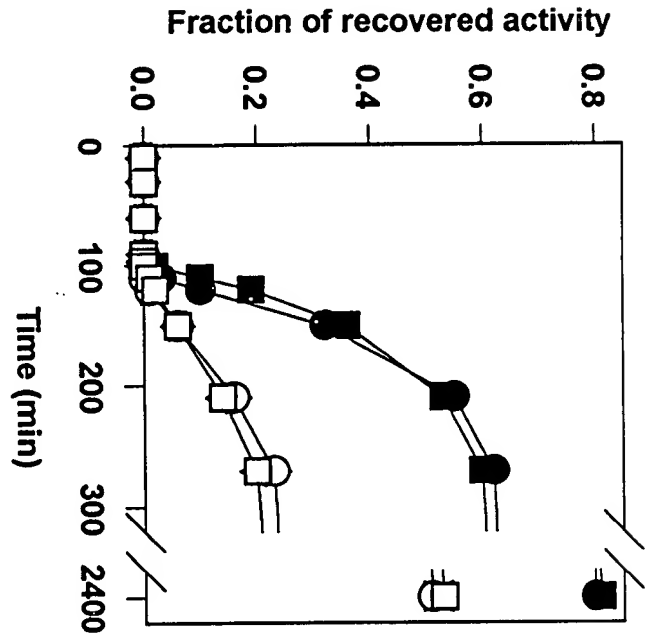


Voziyan et al., Figure 1 12 x 180

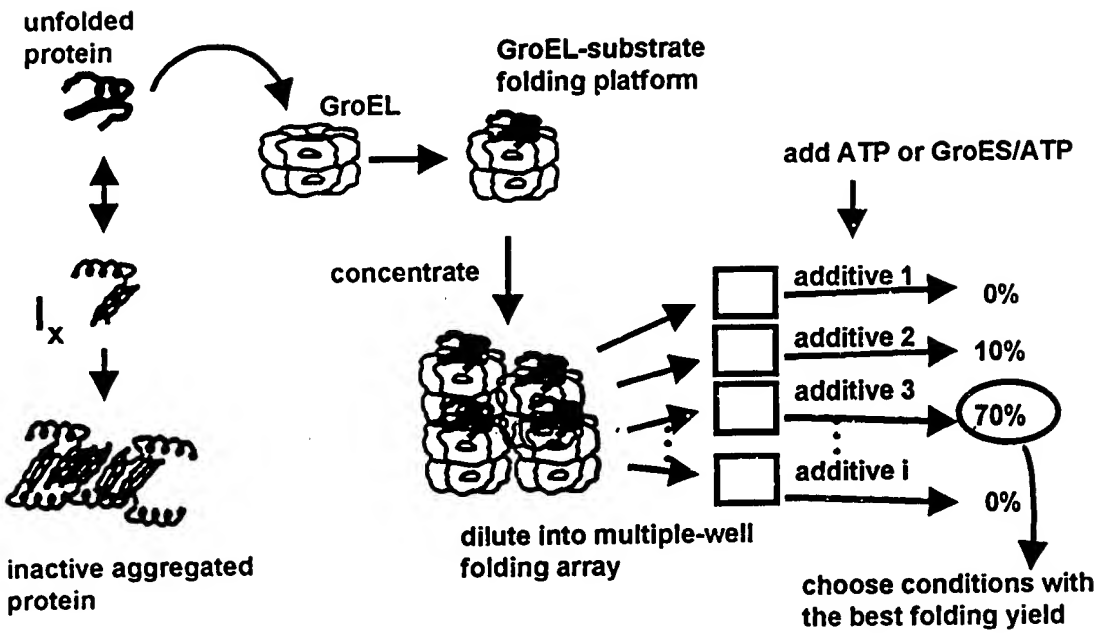


Voziyan ae al., Figure 2 12 x 360

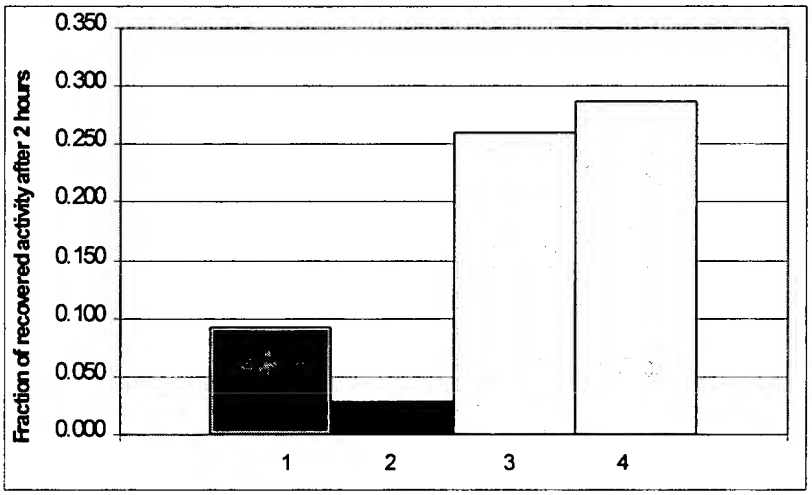


Voziyan et al., Figure 3 8x180

Voziyan et al., Figure 4 8x360



Malate dehydrogenase refolding from immobilized GroEL on beads.

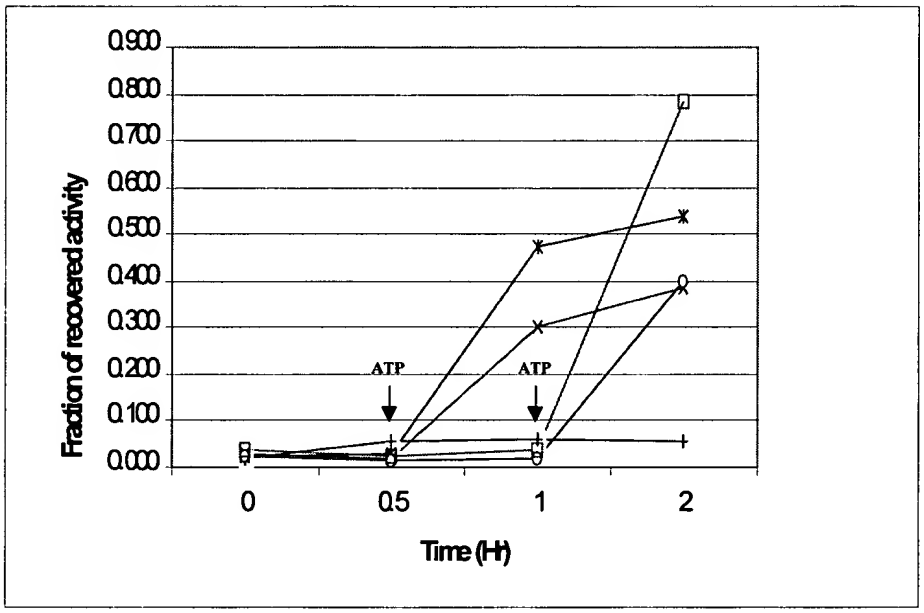


Key :
1 No GroEl, beads alone.
2 GroEL-Beads , no ATP.
3 GroEL-Beads ---> 35% Glycerol + 5mM ATP
4 GroEL-Beads ---> 35% Glycerol + 5mM ATP (second replicate of same beads) indicates that the EL-Beads are reusable

Note: Beads were used for prior experiments, with GS.

FIGURE 5

Glutamine Synthetase



"+" Represents blank beads, all other symbols represent EL-beads.

(+) GS refolding with blocked beads alone no chaperonins present.
(X) incubation of GS-immobilized chaperonin complex for ½ hour before 5 mM and 10 mM $MgCl_2$ added. Activity was followed over two hours.
*(Star *) incubation of GS-immobilized chaperonin complex for ½ hour before 5 mM and 10 mM $MgCl_2$ added. The beads were reused from previous (X) experiment.*
(Open circle)– Refolding of GS from immobilized chaperonin system on beads – this experiment shows that the activity of GS is recovered after the chaperonin-GS complex was incubated for one hour. At that time, 5 mM ATP and 10 mM MgCl2 was added. Activity was monitored one hour later.
(Open square) – same as open circle only refolding of GS from immobilized chaperonin beads with a second replicate. This experiment shows that the immobilized chaperonin system can be reused with comparable results after the Chaperonin-GS complex was incubated for one hour.

FIGURE 6

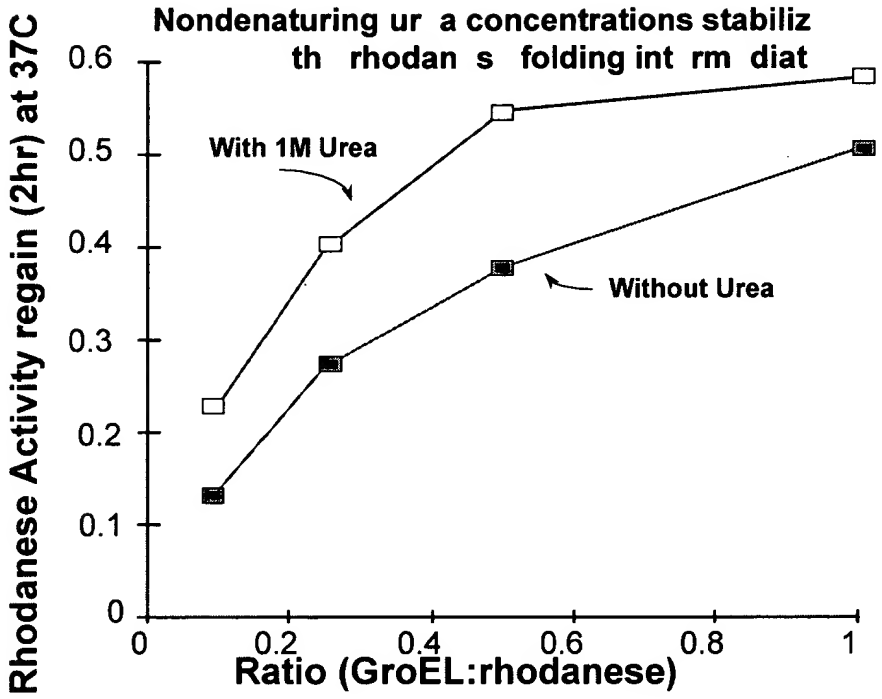

Nondenaturing ur a concentrations stabiliz
th rhodan s folding int rm diat
Rhodanese Activity regain (2hr) at 37C
0.6
0.5
0.4
0.3
0.2
0.1
0
With 1M Urea
Without Urea
0
0.2
0.4
0.6
0.8
1
Ratio (GroEL:rhodanese)

FIGURE 7

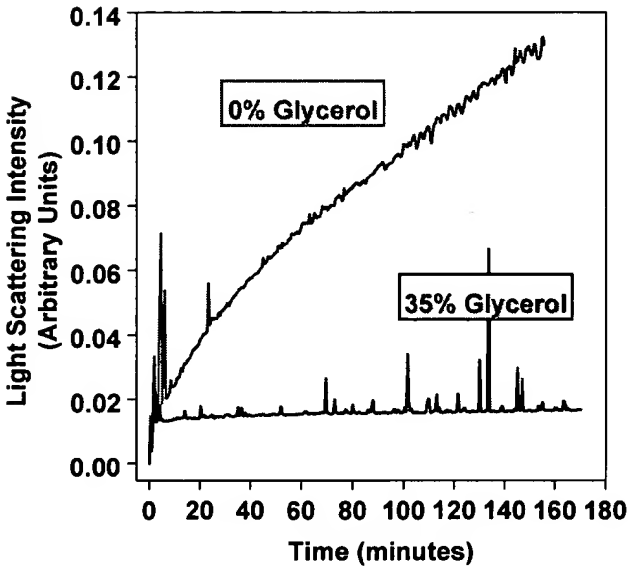

0.14
0.12
0.10
0.08
0.06
0.04
0.02
0.00
Light Scattering Intensity
(Arbitrary Units)
0% Glycerol
35% Glycerol
0 20 40 60 80 100 120 140 160 180
Time (minutes)

FIGURE 8

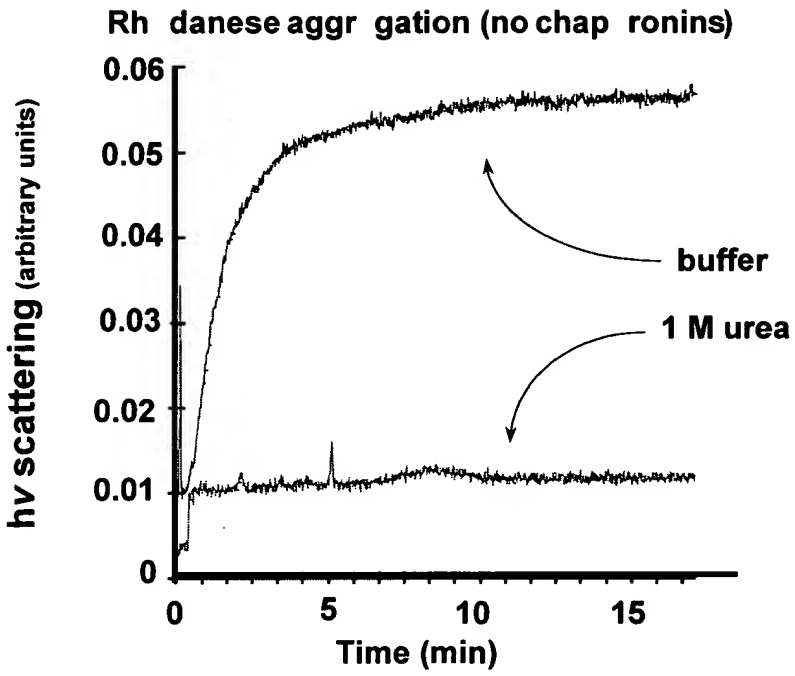

Rh danese aggr gation (no chap ronins)
hv scattering (arbitrary units)
0.06
0.05
0.04
0.03
0.02
0.01
0
0
5
10
15
Time (min)
buffer
1 M urea

FIGURE 9

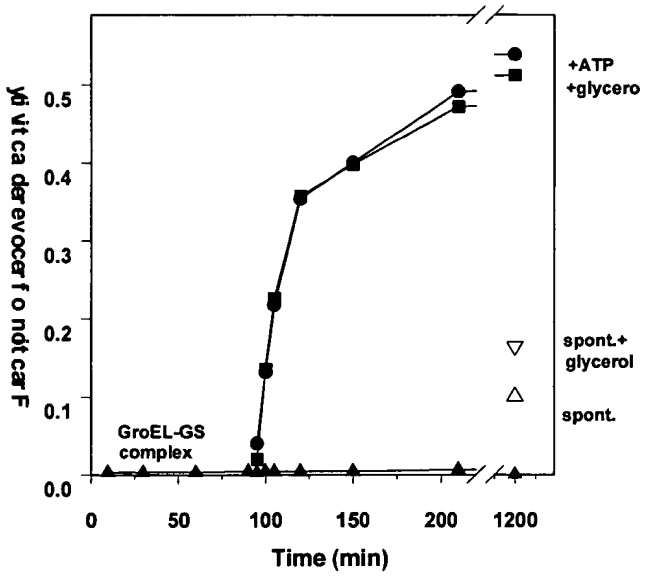

0.5
0.4
0.3
0.2
0.1
0.0
0
50
100
150
200
1200
Time (min)
GroEL-GS
complex
+ATP
+glycero
spont.+
glycerol
spont.

FIGURE 10

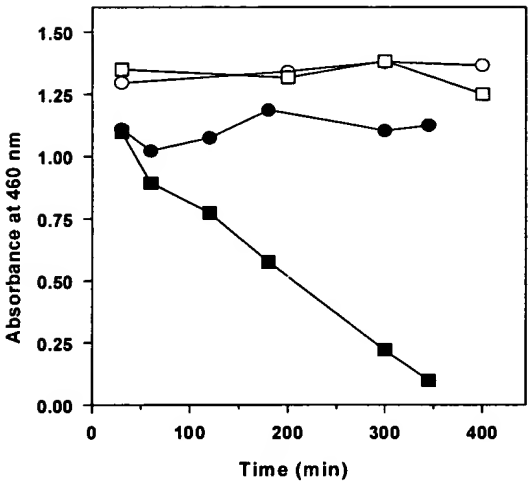

1.50
1.25
1.00
0.75
0.50
0.25
0.00
Absorbance at 460 nm
0
100
200
300
400
Time (min)

FIGURE 11

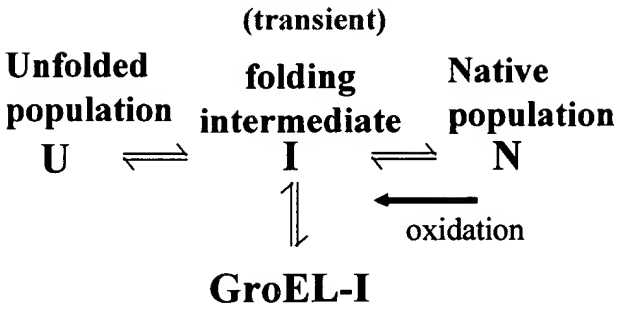

(transient)
Unfolded population
folding intermediate
Native population
U
I
N
oxidation
GroEL-I

FIGURE 12

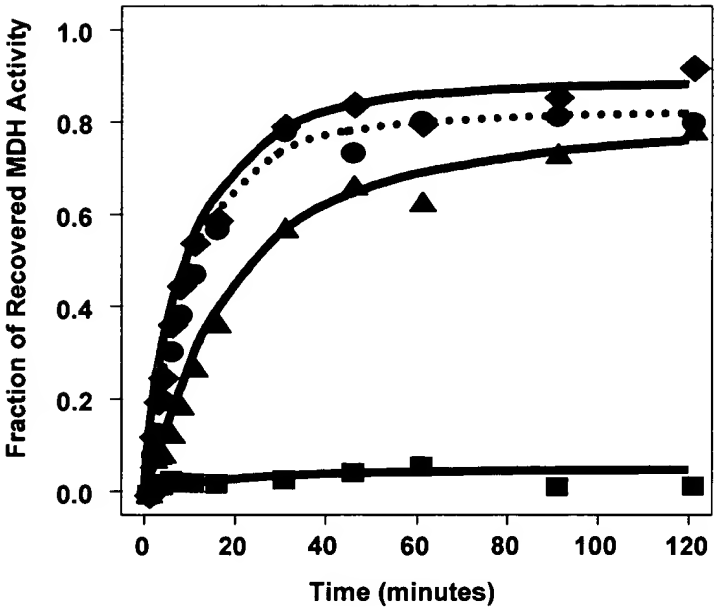

Fraction of Recovered MDH Activity
1.0
0.8
0.6
0.4
0.2
0.0
0
20
40
60
80
100
120
Time (minutes)

FIGURE 13